

Flight Scientist Report
Saturday 03/26/2022 ACTIVATE RF145

Flight Type: Statistical Survey Flight
Flight Route:

Special Notes: This is the second of two flights today probing the area southeast of OXANA. The second flight had higher areal coverage of low clouds. This is a day marked by influence in the region from various aerosol types like dust, smoke, pollen, salt. Chat was down for Falcon today.

King Air

Pilot report (Wusk):

Second flight of a double flight day with HU25. Planned route KLF I ECG OXANA 3210N07110W OXANA ECG KLF I. UC12 taxi and takeoff about 15 minutes early for timing. Plan to go to turn point. ATC offered FL290. Winds at altitude were ~95 kts direct cross to path. 3 sondes dropped turn point, OXANA, Coast. Once over land request direct KLF I from OPHEA for Visual 26. Winds at KLF I were 290@28G34. Crew Was Coldsnow, Wusk, Seaman.

Flight scientist report (Seaman):

RF145
3/26/2022 Flight 2 of 2

Takeoff: 17:22 utc
Landing: 21:20 utc

Flight path:
KLF I ECG OXANA 33.17N/71.17W OXANA Manteo KLF I

Ops Notes:
Uc12 t/o about 10 minutes before falcon.

Instrument notes:
RSP and Sondes operated nominally.

HSRL-2 server froze and required a restart and resulted in some down time for the instrument during the flight.

HSRL-2 Cals and baseline done in endpoint turn.

Science notes:
Possible pollen plume observed near coast in earlier flight of the day.
Elevated enhanced scattering near OBX.

Sonde drops:

- 1) OXANA
- 2) Turnaround at end
- 3) Coast

Falcon

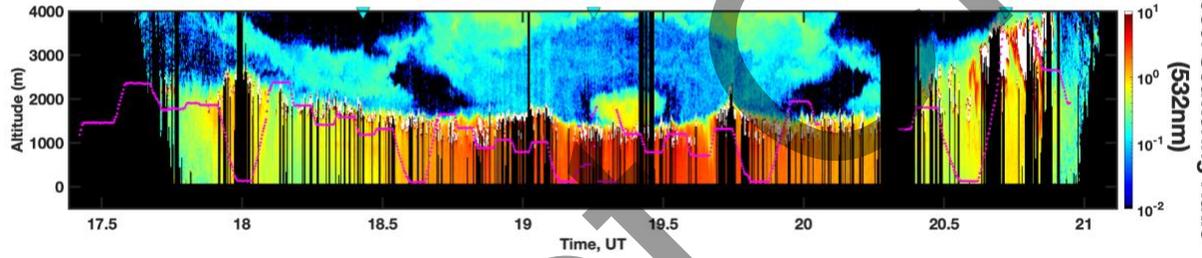
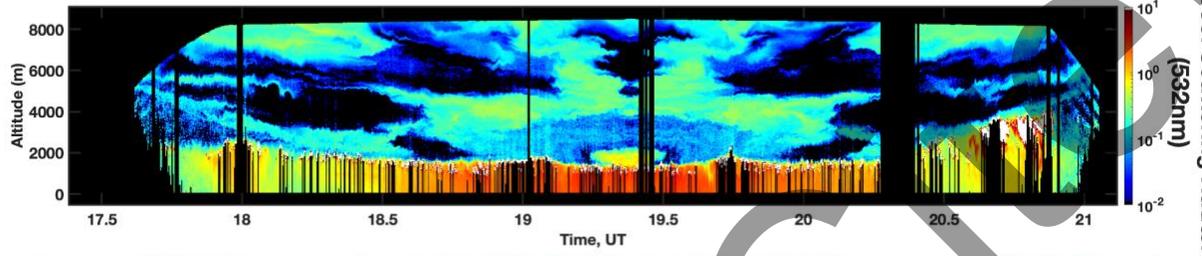
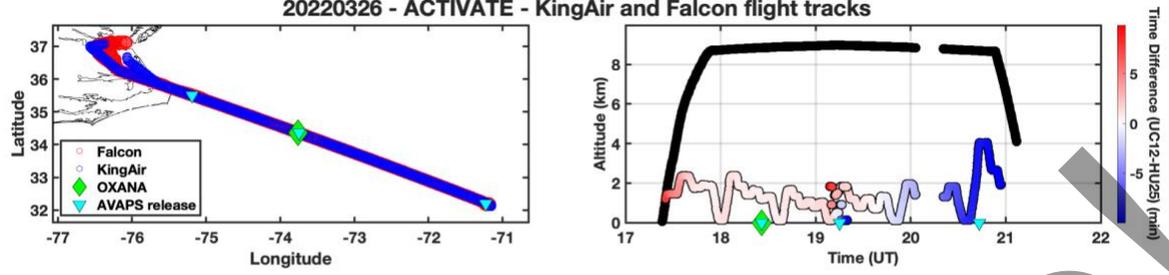
Pilot report (Slover):

ACTIVATE research flight, statistical survey with a twist. Route was KLFY ECG OXANA 3210N07110W OXANA ECG KLFY. Plenty over ocean clouds enroute from 3000 - 6000' MSL. Over land, clouds were sampled from 7000-9000' MSL both coming and going. The traditional low altitude over land data collection was not accomplished in order to gather data in these clouds. Two low approaches over KLFY runway were flown in order to collect data on high pollen day.

Flight scientist report ():

Do Not Clear!

20220326 - ACTIVATE - KingAir and Falcon flight tracks



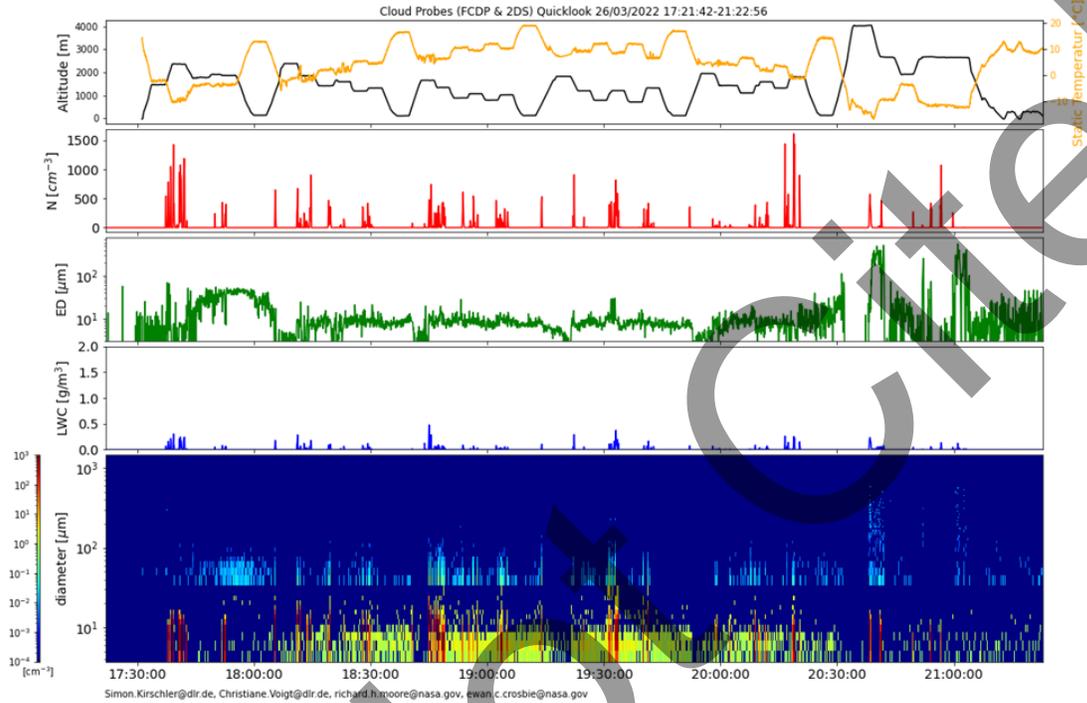
Aerosol Scattering Ratio (532nm)

DO NOT

Quicklook ACTIVATE Cloud Probes (FCDP & 2DS) Quicklook

preliminary data, only for quicklook use

Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie

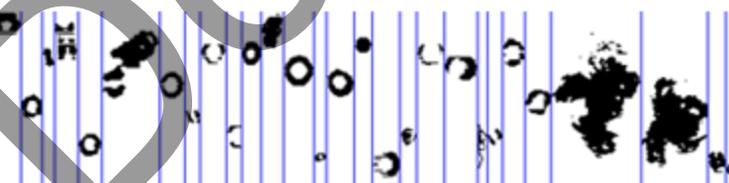
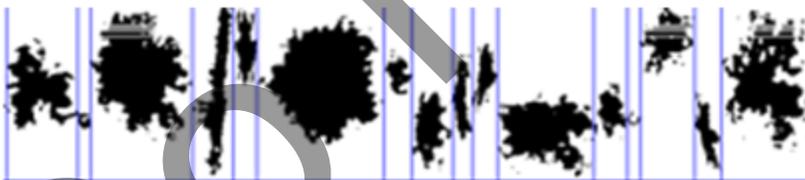
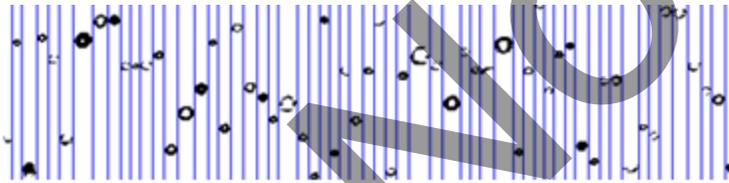
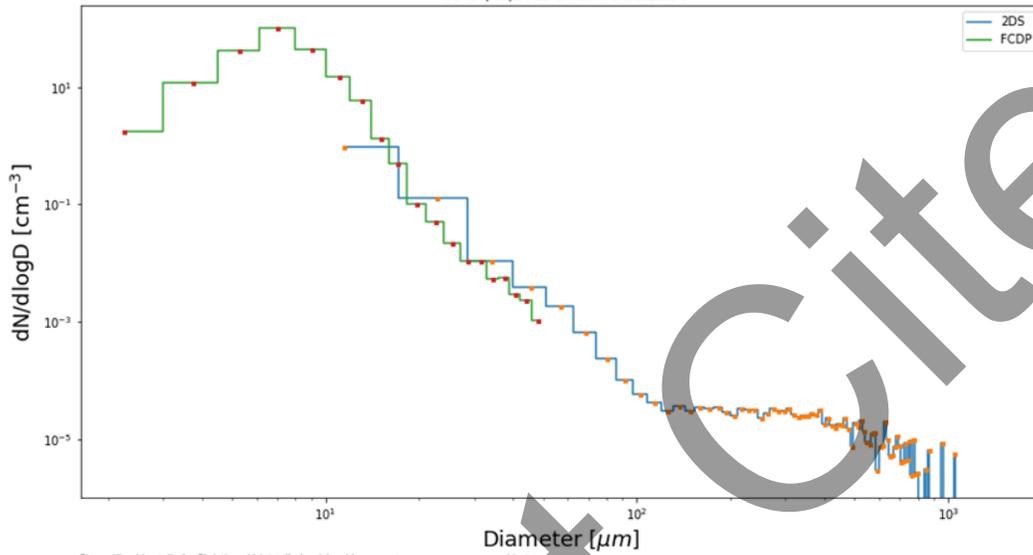


PSD ACTIVATE

preliminary data, only for quicklook use
Simon Kirschler, Christiane Voigt, Richard Moore, Ewan Crosbie

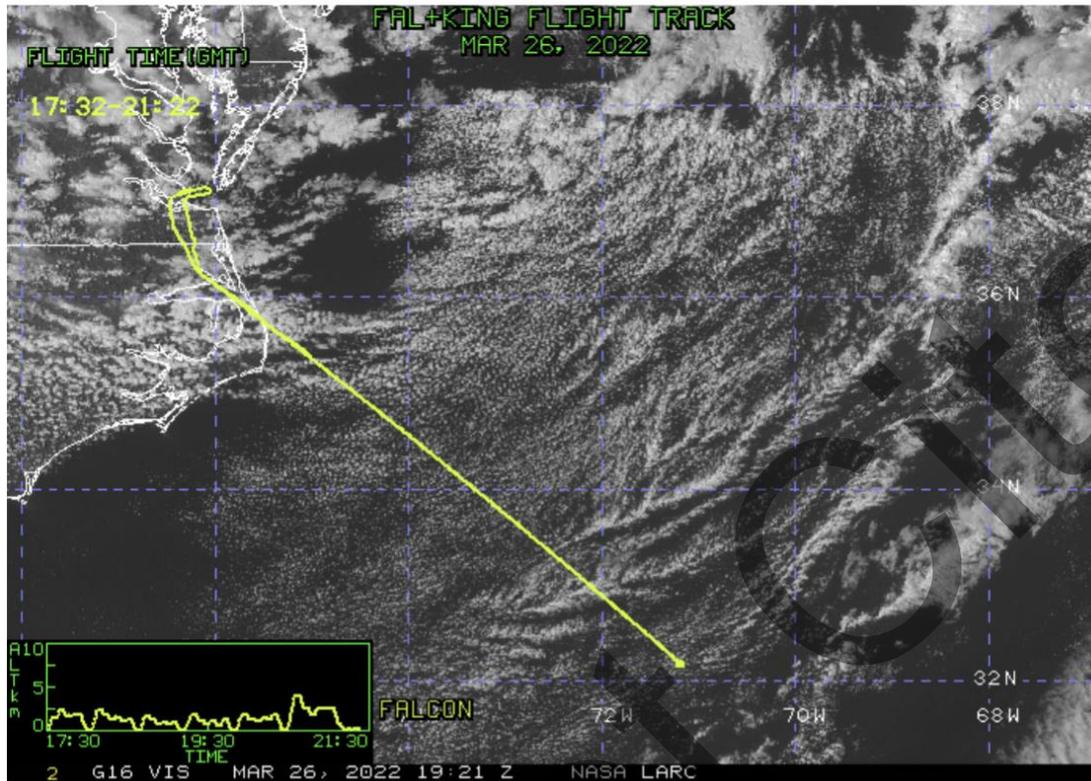


PSD 26/03/2022 17:21:42-21:22:56

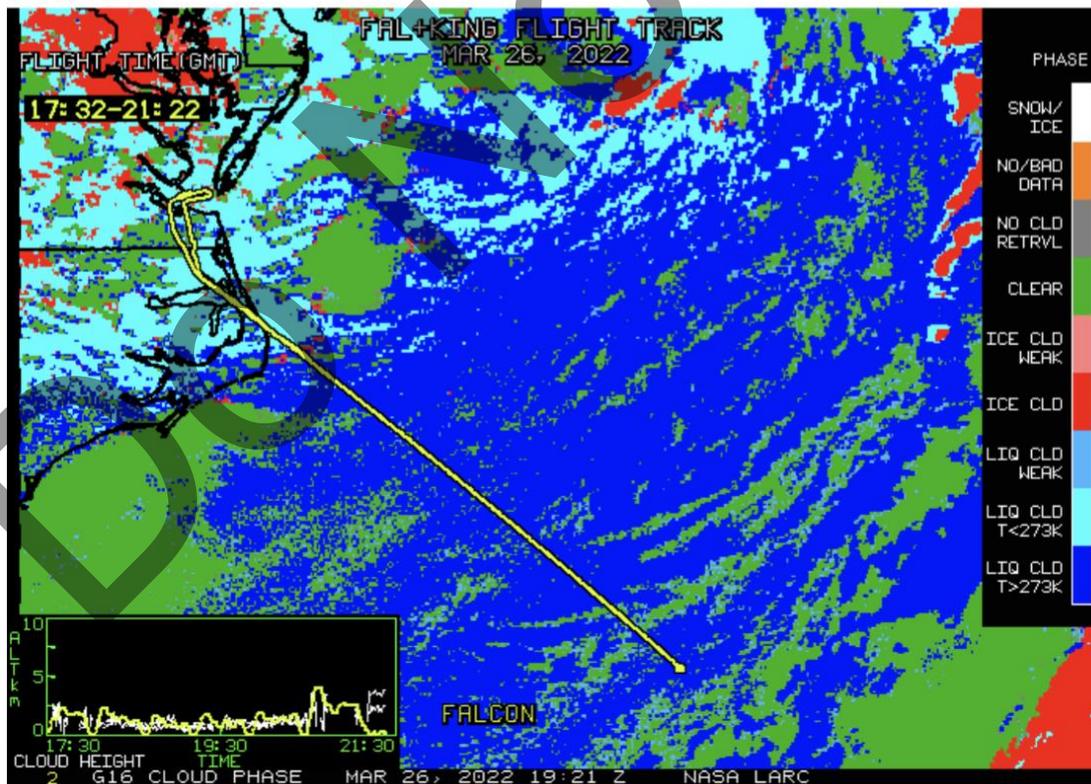


Mixed phase clouds, either liquid drizzle or only ice Precip.

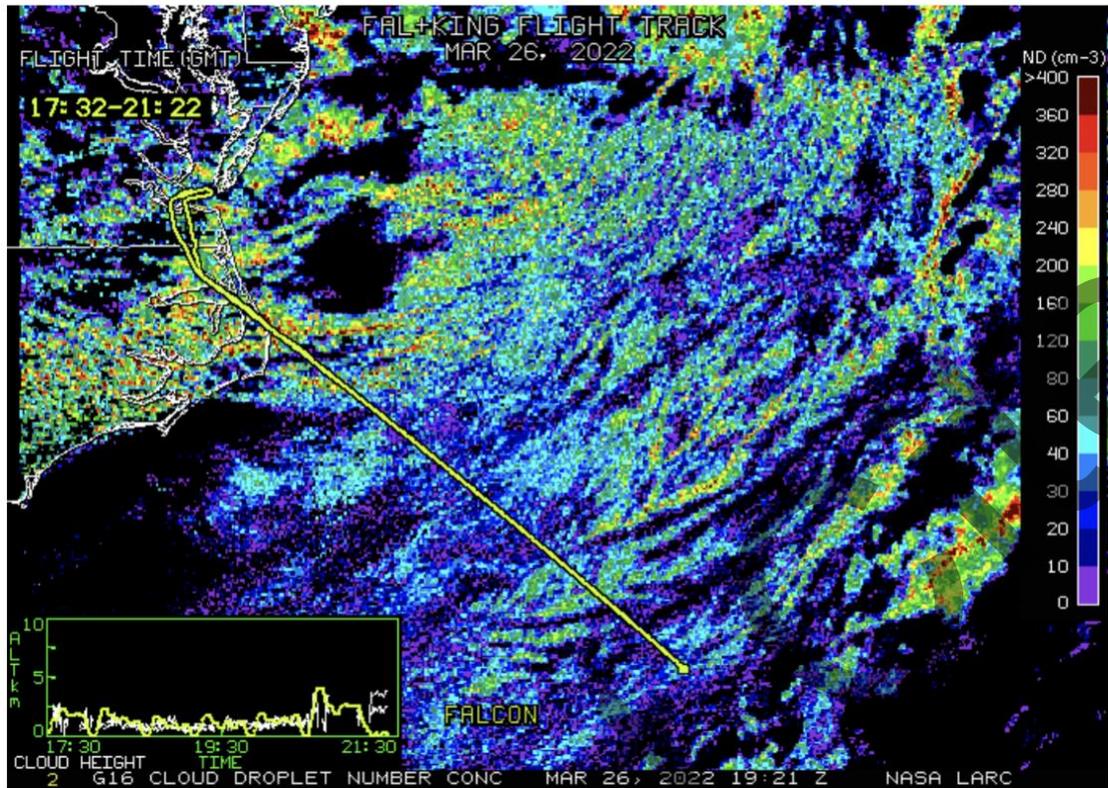
NASA-LaRC Clouds Group GOES-16 Quicklook Images for Flight 145, 19:21 UTC Mar 26, 2022
Visible Image



Cloud Phase



Cloud Droplet Number Concentration (cm-3)



Cloud-Top Height (Kft-ASL)

